

BUPROPION HYDROCHLORIDE - bupropion hydrochloride tablet, film coated
REMEDYREPACK INC.

BOXED WARNING SECTION

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Suicidality and Antidepressant Drugs: Use in Smoking Cessation Treatment: Bupropion hydrochloride tablets, WELLBUTRIN SR and WELLBUTRIN XL are not approved for smoking cessation treatment, but bupropion under the name ZYBAN is approved for this use. Serious neuropsychiatric events, including but not limited to depression, suicidal ideation, suicide attempt, and completed suicide have been reported in patients taking bupropion for smoking cessation. Some cases may have been complicated by the symptoms of nicotine withdrawal in patients who stopped smoking. Depressed mood may be a symptom of nicotine withdrawal. Depression, rarely including suicidal ideation, has been reported in smokers undergoing a smoking cessation attempt without medication. However, some of these symptoms have occurred in patients taking bupropion who continued to smoke.

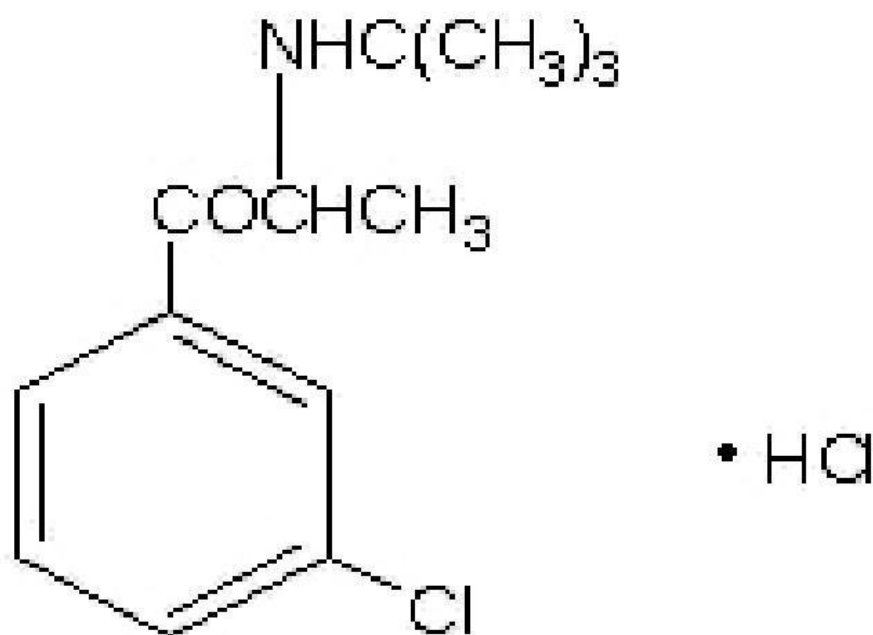
All patients being treated with bupropion for smoking cessation treatment should be observed for neuropsychiatric symptoms including changes in behavior, hostility, agitation, depressed mood, and suicide-related events, including ideation, behavior, and attempted suicide. These symptoms, as well as worsening of preexisting psychiatric illness and completed suicide have been reported in some patients attempting to quit smoking while taking ZYBAN in the post-marketing experience. When symptoms were reported, most were during treatment with ZYBAN but some were following discontinuation of treatment with ZYBAN.

Advise patients and caregivers that the patient using bupropion for smoking cessation should stop taking bupropion and contact a healthcare provider immediately if agitation, hostility, depressed mood, or changes in thinking or behavior that are not typical for the patient are observed, or if the patient develops suicidal ideation or suicidal behavior. In many post-marketing cases, resolution of symptoms after discontinuation of ZYBAN.

The risks of using bupropion for smoking cessation should be weighed against the benefits of its use. ZYBAN has been demonstrated to increase the likelihood of abstinence from smoking for as long as 6 months compared to treatment with placebo. The health benefits of quitting smoking are immediate and substantial. (See WARNINGS: Neuropsychiatric Symptoms and Suicide Risk in Smoking Cessation Treatment and PRECAUTIONS: Information for Patients.)

DESCRIPTION

hydrochloride. The molecular weight is 276.2. The molecular formula is $C_{13}H_{18}ClNOHCl$. Bupropion hydrochloride powder is white or almost white, crystalline, and highly soluble in water. It has a bitter taste and produces the sensation of local anesthesia on the oral mucosa. The structural formula is:



Bupropion hydrochloride tablets, USP for oral administration, are available containing 75 mg or 100 mg of bupropion hydrochloride, USP. Each tablet also contains the following inactive ingredients: anhydrous lactose, colloidal silicon dioxide, crospovidone, hydrochloric acid, hypromellose, microcrystalline cellulose, polydextrose, polyethylene glycol, stearic acid, titanium dioxide and triacetin. In addition, the 75 mg tablets contain synthetic red iron oxide and synthetic yellow iron oxide and the 100 mg tablets contain FD&C Blue No. 2 Aluminum Lake and FD&C Yellow No. 6 Aluminum Lake.

CLINICAL PHARMACOLOGY

Pharmacodynamics

The neurochemical mechanism of the antidepressant effect of bupropion is not known. Bupropion is a relatively weak inhibitor of the neuronal uptake of norepinephrine and dopamine, and does not inhibit monoamine oxidase or the re-uptake of serotonin.

Bupropion produces dose related central nervous system (CNS) stimulant effects in animals, as evidenced by increased locomotor activity, increased rates of responding in various schedule controlled operant behavior tasks, and, at high doses, induction of mild stereotyped behavior.

Bupropion causes convulsions in rodents and dogs at doses approximately 10-fold the dose recommended as the human antidepressant dose.

Pharmacokinetics

Bupropion is a racemic mixture. The pharmacological activity and pharmacokinetics of the individual enantiomers have not been studied. In humans, following oral administration of bupropion, peak plasma bupropion concentrations are usually achieved within 2 hours, followed by a biphasic decline. The terminal phase has a mean half-life of 14 hours, with a range of 8 to 24 hours. The distribution phase has a mean half-life of 3 to 4 hours. The mean elimination half-life (SD) of bupropion after chronic dosing is 21 (

Absorption

The absolute bioavailability of bupropion hydrochloride tablets in humans has not been determined because an intravenous formulation for human use is not available. However, it appears likely that only a small proportion of any orally administered dose reaches the systemic circulation intact.

Distribution

In vitro tests show that bupropion is 84% bound to human plasma protein at concentrations up to 200 mcg/mL. The extent of protein binding of the hydroxybupropion metabolite is similar to that for bupropion, whereas the extent of protein binding of the threohydrobupropion metabolite is about half that seen with bupropion.

Metabolism

Bupropion is extensively metabolized in humans. Three metabolites have been shown to be active: hydroxybupropion, which is formed via hydroxylation of the tert-butyl group of bupropion, and the amino-alcohol isomers threohydrobupropion and erythrohydrobupropion, which are formed via reduction of the carbonyl group. In vitro findings suggest that cytochrome P450IIB6 (CYP2B6) is the principal isoenzyme involved in the formation of hydroxybupropion, while cytochrome P450 isoenzymes are not involved in the formation of threohydrobupropion. Oxidation of the bupropion side chain results in the formation of a glycine conjugate of meta-chlorobenzoic acid, which is then excreted as the major urinary metabolite. The potency and toxicity of the metabolites relative to bupropion have not been fully characterized. However, it has been demonstrated in an antidepressant screening test in mice that hydroxybupropion is one-half as potent as bupropion, while threohydrobupropion and erythrohydrobupropion are 5-fold less potent than bupropion. This may be of clinical importance because their plasma concentrations are as high or higher than those of bupropion.

Because bupropion is extensively metabolized, there is the potential for drug-drug interactions, particularly with those agents that are metabolized by the cytochrome P450IIB6 (CYP2B6) isoenzyme. Although bupropion is not metabolized by cytochrome P450IID6 (CYP2D6), there is the potential for drug-drug interactions when bupropion is coadministered with drugs metabolized by this isoenzyme (see PRECAUTIONS: Drug Interactions).

Following a single-dose in humans, peak plasma concentrations of hydroxybupropion occur approximately 3 hours after administration of bupropion hydrochloride tablets. Peak plasma concentrations of hydroxybupropion are approximately 10 times the peak level of the parent drug at

steady-state. The elimination half-life of hydroxybupropion is approximately 20 (5) hours, and its AUC at steady-state is about 17 times that of bupropion. The times to peak concentrations for the erythrohydrobupropion and threohydrobupropion metabolites are similar to that of the hydroxybupropion metabolite. However, their elimination half-lives are longer, 33 (10) and 37 (13) hours, respectively, and steady-state AUCs are 1.5 and 7 times that of bupropion, respectively.

Bupropion and its metabolites exhibit linear kinetics following chronic administration of 300 to 450 mg/day.

Elimination

Following oral administration of 200 mg of ¹⁴C-bupropion in humans, 87% and 10% of the radioactive dose were recovered in the urine and feces, respectively. However, the fraction of the oral dose of bupropion excreted unchanged was only 0.5%, a finding consistent with the extensive metabolism of bupropion.

Populations Subgroups

Factors or conditions altering metabolic capacity (e.g., liver disease, congestive heart failure [CHF], age, concomitant medications, etc.) or elimination may be expected to influence the degree and extent of accumulation of the active metabolites of bupropion. The elimination of the major metabolites of bupropion may be affected by reduced renal or hepatic function because they are moderately polar compounds and are likely to undergo further metabolism or conjugation in the liver prior to urinary excretion.

Hepatic

The effect of hepatic impairment on the pharmacokinetics of bupropion was characterized in two single-dose studies, one in patients with alcoholic liver disease and one in patients with mild to severe cirrhosis. The first study showed that the half-life of hydroxybupropion was significantly longer in eight patients with alcoholic liver disease than in eight healthy volunteers (3214 hours vs. 215 hours, respectively). Although not statistically significant, the AUCs for bupropion and hydroxybupropion were more variable and tended to be greater (by 53% to 57%) in volunteers with alcoholic liver disease. The differences in half-life for bupropion and the other metabolites in the two patient groups were minimal.

Renal

There is limited information on the pharmacokinetics of bupropion in patients with renal impairment. An interstudy comparison between normal subjects and patients with end stage renal failure demonstrated that the parent drug C_{max} and AUC values were comparable in the two groups, whereas the hydroxybupropion and threohydrobupropion metabolites had a 2.3-fold and 2.8-fold increase, respectively, in AUC for patients with end stage renal failure. A second study, comparing normal subjects and patients with moderate to severe renal impairment (GFR 30.9-10.8 mL/min) showed that exposure to a single 150 mg dose of sustained-release bupropion was approximately 2-fold higher in patients with impaired renal function while levels of the hydroxybupropion and threo/erythrohydrobupropion (combined) metabolites were similar in the two groups. The elimination of bupropion and/or the major metabolites of bupropion may be reduced by impaired renal function (see PRECAUTIONS: General: Renal Impairment).

Left Ventricular Dysfunction

During a chronic dosing study in 14 depressed patients with left ventricular dysfunction (history of CHF or an enlarged heart on x-ray), no apparent effect on the pharmacokinetics of bupropion or its metabolites was revealed, compared to healthy volunteers.

Age

Gender

A single-dose study involving 12 healthy male and 12 healthy female volunteers revealed no sex related differences in the pharmacokinetic parameters of bupropion.

Smokers

INDICATIONS & USAGE

Bupropion hydrochloride tablets are indicated for the treatment of major depressive disorder. A physician considering bupropion for the management of a patient's first episode of depression should be aware that the drug may cause generalized seizures in a dose dependent manner with an approximate incidence of 0.4% (4/1,000). This incidence of seizures may exceed that of other marketed antidepressants by as much as 4-fold. This relative risk is only an approximate estimate because no direct comparative studies have been conducted (see WARNINGS).

The efficacy of bupropion has been established in three placebo-controlled trials, including two of approximately 3 weeks' duration in depressed inpatients and one of approximately 6 weeks' duration in depressed outpatients. The depressive disorder of the patients studied corresponds most closely to the Major Depression category of the APA Diagnostic and Statistical Manual III.

Effectiveness of bupropion in long-term use, that is, for more than 6 weeks, has not been systematically evaluated in controlled trials. Therefore, the physician who elects to use bupropion for extended periods should periodically reevaluate the long-term usefulness of the drug for the individual patient.

CONTRAINDICATIONS

Bupropion is contraindicated in patients with a seizure disorder.

Bupropion hydrochloride tablets are contraindicated in patients treated with ZYBAN

Bupropion is contraindicated in patients with a current or prior diagnosis of bulimia or anorexia nervosa because of a higher incidence of seizures noted in such patients treated with bupropion.

Bupropion is contraindicated in patients undergoing abrupt discontinuation of alcohol or sedatives (including benzodiazepines).

The concurrent administration of bupropion and a monoamine oxidase (MAO) inhibitor is contraindicated. At least 14 days should elapse between discontinuation of an MAO inhibitor and initiation of treatment with bupropion.

Bupropion is contraindicated in patients who have shown an allergic response to bupropion or the other ingredients that make up bupropion hydrochloride tablets.

WARNINGS

Clinical Worsening and Suicide Risk in Treating Psychiatric Disorders

The pooled analyses of placebo-controlled trials in children and adolescents with MDD, obsessive compulsive disorder (OCD), or other psychiatric disorders included a total of 24 short-term trials of nine antidepressant drugs in over 4,400 patients. The pooled analyses of placebo-controlled trials in adults with MDD or other psychiatric disorders included a total of 295 short-term trials (median duration of 2 months) of 11 antidepressant drugs in over 77,000 patients. There was considerable variation in risk of suicidality among drugs, but a tendency toward an increase in the younger patients for almost all drugs studied. There were differences in absolute risk of suicidality across the different indications, with the highest incidence in MDD. The risk differences (drug vs. placebo), however, were relatively stable within age strata and across indications. These risk differences (drug-placebo difference in the number of cases of suicidality per 1,000 patients treated) are provided in Table 1.

Table 1 Age Range Drug-Placebo Difference in

Number of Cases of Suicidality

Per 1,000 Patients Treated

Increases Compared to Placebo

< 1814 additional cases

18 to 245 additional cases

Decreases Compared to Placebo

25 to 641 fewer case

656 fewer cases

No suicides occurred in any of the pediatric trials. There were suicides in the adult trials, but the number was not sufficient to reach any conclusion about drug effect on suicide.

It is unknown whether the suicidality risk extends to longer term use, i.e., beyond several months. However, there is substantial evidence from placebo-controlled maintenance trials in adults with depression that the use of antidepressants can delay the recurrence of depression.

All patients being treated with antidepressants for any indication should be monitored appropriately and observed closely for clinical worsening, suicidality and unusual changes in behavior, especially during the initial few months of a course of drug therapy, or at times of dose changes, either increases or decreases.

The following symptoms, anxiety, agitation, panic attacks, insomnia, irritability, hostility, aggressiveness, impulsivity, akathisia (psychomotor restlessness), hypomania, and mania, have been reported in adult and pediatric patients being treated with antidepressants for major depressive disorder as well as for other indications, both psychiatric and nonpsychiatric. Although a causal link between the emergence of such symptoms and either the worsening of depression and/or the emergence of suicidal impulses has not been established, there is concern that such symptoms may represent precursors to emerging suicidality.

Consideration should be given to changing the therapeutic regimen, including possibly discontinuing the medication, in patients whose depression is persistently worse, or who are experiencing emergent suicidality or symptoms that might be precursors to worsening depression or suicidality, especially if these symptoms are severe, abrupt in onset, or were not part of the patient's presenting symptoms.

Families and caregivers of patients being treated with antidepressants for major depressive disorder or other indications, both psychiatric and nonpsychiatric, should be alerted about the need to monitor patients for the emergence of agitation, irritability, unusual changes in behavior, and the other symptoms described above, as well as the emergence of suicidality, and to report such symptoms immediately to

healthcare providers. Such monitoring should include daily observation by families and caregivers. Prescriptions for bupropion should be written for the smallest quantity of tablets consistent with good patient management, in order to reduce the risk of overdose.

Neuropsychiatric Symptoms and Suicide Risk in Smoking Cessation Treatment

Bupropion hydrochloride tablets, WELLBUTRIN SR and WELLBUTRIN XL are not approved for smoking cessation treatment, but bupropion under the name ZYBAN is approved for this use. Serious neuropsychiatric symptoms have been reported in patients taking bupropion for smoking cessation (see BOXED WARNING, ADVERSE REACTIONS). These have included changes in mood (including depression and mania), psychosis, hallucinations, paranoia, delusions, homicidal ideation, hostility, agitation, aggression, anxiety and panic, as well as suicidal ideation, suicide attempt and completed suicide. Some reported cases may have been complicated by the symptoms of nicotine withdrawal in patients who stopped smoking. Depressed mood may be a symptom of nicotine withdrawal. Depression, rarely including suicidal ideation, has been reported in smokers undergoing a smoking cessation attempt without medication. However, some of these symptoms have occurred in patients taking bupropion who continued to smoke. When symptoms were reported, most were during bupropion treatment, but some were following discontinuation of bupropion therapy.

Patients with serious psychiatric illness such as schizophrenia, bipolar disorder and major depressive disorder did not participate in the premarketing studies of ZYBAN.

Advise patients and caregivers that the patient using bupropion for smoking cessation should stop taking bupropion and contact a healthcare provider immediately if agitation, depressed mood, or changes in behavior or thinking that are not typical for the patient are observed, or if the patient develops suicidal ideation or suicidal behavior. In many post-marketing cases, resolution of symptoms after discontinuation of ZYBAN was reported, although in some cases the symptoms persisted, therefore, ongoing monitoring and supportive care should be provided until symptoms resolve.

The risks of using bupropion for smoking cessation should be weighed against the benefits of its use. ZYBAN has been demonstrated to increase the likelihood of abstinence from smoking for as long as 6 months compared to treatment with placebo. The health benefits of quitting smoking are immediate and substantial.

Screening Patients for Bipolar Disorder

Bupropion-Containing Products

Patients should be made aware that bupropion hydrochloride tablets contain the same active ingredient found in ZYBAN used as an aid to smoking cessation treatment, and that bupropion hydrochloride tablets should not be used in combination with ZYBAN or any other medications that contain bupropion, such as WELLBUTRIN SR (bupropion hydrochloride), the sustained-release formulation or WELLBUTRIN XL (bupropion hydrochloride), the extended-release formulation.

Seizures

Bupropion is associated with seizures in approximately 0.4% (4/1,000) of patients treated at doses up to 450 mg/day. This incidence of seizures may exceed that of other marketed antidepressants by as much as 4-fold. This relative risk is only an approximate estimate because no direct comparative studies have been conducted. The estimated seizure incidence for bupropion hydrochloride tablets increases almost 10-fold between 450 and 600 mg/day, which is twice the usually required daily dose (300 mg) and one

and one-third the maximum recommended daily dose (450 mg). Given the wide variability among individuals and their capacity to metabolize and eliminate drugs this disproportionate increase in seizure incidence with dose incrementation calls for caution in dosing.

A separate, prospective study was conducted to determine the incidence of seizure during an 8-week treatment exposure in approximately 3,200 additional patients who received daily doses of up to 450 mg. Patients were permitted to continue treatment beyond 8 weeks if clinically indicated. Eight seizures occurred during the initial 8-week treatment period and five seizures were reported in patients continuing treatment beyond 8 weeks, resulting in a total seizure incidence of 0.4%.

The risk of seizure appears to be strongly associated with dose. Sudden and large increments in dose may contribute to increased risk. While many seizures occurred early in the course of treatment, some seizures did occur after several weeks at fixed dose. Bupropion hydrochloride tablets should be discontinued and not restarted in patients who experience a seizure while on treatment.

The risk of seizure is also related to patient factors, clinical situations, and concomitant medications, which must be considered in selection of patients for therapy with bupropion hydrochloride tablets.

- * Patient factors: Predisposing factors that may increase the risk of seizure with bupropion use include history of head trauma or prior seizure, central nervous system (CNS) tumor, the presence of severe hepatic cirrhosis, and concomitant medications that lower seizure threshold.

- * Concomitant medications: Many medications (e.g., antipsychotics, antidepressants, theophylline, systemic steroids) are known to lower seizure threshold.

Recommendations for Reducing the Risk of Seizure

Retrospective analysis of clinical experience gained during the development of bupropion suggests that the risk of seizure may be minimized if:

- * the total daily dose of bupropion does not exceed 450 mg,
- * the rate of incrementation of dose is very gradual.

Bupropion should be administered with extreme caution to patients with a history of seizure, cranial trauma, or other predisposition(s) toward seizure, or patients treated with other agents (e.g., antipsychotics, other antidepressants, theophylline, systemic steroids, etc.) that lower seizure threshold.

Hepatic Impairment

Bupropion should be used with extreme caution in patients with severe hepatic cirrhosis. In these patients a reduced dose and/or frequency is required, as peak bupropion, as well as AUC, levels are substantially increased and accumulation is likely to occur in such patients to a greater extent than usual. The dose should not exceed 75 mg once a day in these patients (see CLINICAL PHARMACOLOGY, PRECAUTIONS, and DOSAGE AND ADMINISTRATION).

Potential for Hepatotoxicity

In rats receiving large doses of bupropion chronically, there was an increase in incidence of hepatic hyperplastic nodules and hepatocellular hypertrophy. In dogs receiving large doses of bupropion chronically, various histologic changes were seen in the liver, and laboratory tests suggesting mild hepatocellular injury were noted.

PRECAUTIONS

General

Agitation and Insomnia

A substantial proportion of patients treated with bupropion experience some degree of increased restlessness, agitation, anxiety, and insomnia, especially shortly after initiation of treatment. In clinical studies, these symptoms were sometimes of sufficient magnitude to require treatment with sedative/hypnotic drugs. In approximately 2% of patients, symptoms were sufficiently severe to require discontinuation of treatment with bupropion.

Psychosis, Confusion, and Other Neuropsychiatric Phenomena

Depressed patients treated with bupropion have been reported to show a variety of neuropsychiatric signs and symptoms including delusions, hallucinations, psychosis, concentration disturbance, paranoia and confusion. Because of the uncontrolled nature of many studies, it is impossible to provide a precise estimate of the extent of risk imposed by treatment with bupropion. In several cases, neuropsychiatric phenomena abated upon dose reduction and/or withdrawal of treatment.

Activation of Psychosis and/or Mania

Antidepressants can precipitate manic episodes in bipolar disorder patients during the depressed phase of their illness and may activate latent psychosis in other susceptible patients. Bupropion is expected to pose similar risks.

Altered Appetite and Weight

A weight loss of greater than 5 lbs occurred in 28% of patients receiving bupropion. This incidence is approximately double that seen in comparable patients treated with tricyclics or placebo. Furthermore, while 35% of patients receiving tricyclic antidepressants gained weight, only 9.4% of patients treated with bupropion did. Consequently, if weight loss is a major presenting sign of a patient's depressive illness, the anorectic and/or weight reducing potential of bupropion should be considered.

Allergic Reactions

Anaphylactoid/anaphylactic reactions characterized by symptoms such as pruritus, urticaria, angioedema, and dyspnea requiring medical treatment have been reported in clinical trials with bupropion. In addition, there have been rare spontaneous post-marketing reports of erythema multiforme, Stevens-Johnson Syndrome, and anaphylactic shock associated with bupropion. A patient should stop taking bupropion and consult a doctor if experiencing allergic or anaphylactoid/anaphylactic reactions (e.g., skin rash, pruritus, hives, chest pain, edema, and shortness of breath) during treatment.

Arthralgia, myalgia, and fever with rash and other symptoms suggestive of delayed hypersensitivity have been reported in association with bupropion. These symptoms may resemble serum sickness.

Cardiovascular Effects

In clinical practice, hypertension, in some cases severe, requiring acute treatment, has been reported in patients receiving bupropion alone and in combination with nicotine replacement therapy. These events have been observed in both patients with and without evidence of preexisting hypertension.

Data from a comparative study of the sustained-release formulation of bupropion (ZYBAN Sustained-Release Tablets), nicotine transdermal system (NTS), the combination of sustained-release bupropion

plus NTS, and placebo as an aid to smoking cessation suggest a higher incidence of treatment emergent hypertension in patients treated with the combination of sustained-release bupropion and NTS. In this study, 6.1% of patients treated with the combination of sustained-release bupropion and NTS had treatment emergent hypertension compared to 2.5%, 1.6%, and 3.1% of patients treated with sustained-release bupropion, NTS, and placebo, respectively. The majority of these patients had evidence of preexisting hypertension. Three patients (1.2%) treated with the combination of ZYBAN and NTS and one patient (0.4%) treated with NTS had study medication discontinued due to hypertension compared to none of the patients treated with ZYBAN or placebo. Monitoring of blood pressure is recommended in patients who receive the combination of bupropion and nicotine replacement.

There is no clinical experience establishing the safety of bupropion in patients with a recent history of myocardial infarction or unstable heart disease. Therefore, care should be exercised if it is used in these groups. Bupropion was well tolerated in depressed patients who had previously developed orthostatic hypotension while receiving tricyclic antidepressants and was also generally well tolerated in a group of 36 depressed inpatients with stable congestive heart failure (CHF). However, bupropion was associated with a rise in supine blood pressure in the study of patients with CHF, resulting in discontinuation of treatment in two patients for exacerbation of baseline hypertension.

Hepatic Impairment

Bupropion should be used with extreme caution in patients with severe hepatic cirrhosis. In these patients, a reduced dose and frequency is required. Bupropion should be used with caution in patients with hepatic impairment (including mild to moderate hepatic cirrhosis) and a reduced frequency and/or dose should be considered in patients with mild to moderate hepatic cirrhosis.

All patients with hepatic impairment should be closely monitored for possible adverse effects that could indicate high drug and metabolite levels (see CLINICAL PHARMACOLOGY, WARNINGS, and DOSAGE AND ADMINISTRATION).

Renal Impairment

There is limited information on the pharmacokinetics of bupropion in patients with renal impairment. An interstudy comparison between normal subjects and patients with end stage renal failure demonstrated that the parent drug C_{max} and AUC values were comparable in the two groups, whereas the hydroxybupropion and threohydrobupropion metabolites had a 2.3-fold and 2.8-fold increase, respectively, in AUC for patients with end-stage renal failure. A second study, comparing normal subjects and patients with moderate to severe renal impairment (GFR 30.9-10.8 mL/min) showed that exposure to a single 150 mg dose of sustained-release bupropion was approximately 2-fold higher in patients with impaired renal function while levels of the hydroxybupropion and threo/erythrohydrobupropion (combined) metabolites were similar in the two groups. Bupropion is extensively metabolized in the liver to active metabolites, which are further metabolized and subsequently excreted by the kidneys. Bupropion should be used with caution in patients with renal impairment and a reduced frequency and/or dose should be considered as bupropion and the metabolites of bupropion may accumulate in such patients to a greater extent than usual. The patient should be closely monitored for possible adverse effects that could indicate high drug or metabolite levels.

Information for Patients

Prescribers or other health professionals should inform patients, their families, and their caregivers about the benefits and risks associated with treatment with bupropion and should counsel them in its appropriate use. A patient Medication Guide about Antidepressant Medicines, Depression and Other Serious Mental Illnesses, and Suicidal Thoughts or Actions, Quitting Smoking, Quit-Smoking Medication, Changes in Thinking and Behavior, Depression, and Suicidal Thoughts or Actions,

and What Other Important Information Should I Know About Bupropion Hydrochloride Tablets? is available for bupropion hydrochloride tablets. The prescriber or health professional should instruct patients, their families, and their caregivers to read the Medication Guide and should assist them in understanding its contents. Patients should be given the opportunity to discuss the contents of the Medication Guide and to obtain answers to any questions they may have. The complete text of the Medication Guide is reprinted at the end of this document.

Patients should be advised of the following issues and asked to alert their prescriber if these occur while taking bupropion.

Clinical Worsening and Suicide Risk in Treating Psychiatric Disorders

Patients, their families and their caregivers should be encouraged to be alert to the emergence of anxiety, agitation, panic attacks, insomnia, irritability, hostility, aggressiveness, impulsivity, akathisia (psychomotor restlessness), hypomania, mania, other unusual changes in behavior, worsening of depression, and suicidal ideation, especially early during antidepressant treatment and when the dose is adjusted up or down. Families and caregivers of patients should be advised to look for the emergence of such symptoms on a day to day basis, since changes may be abrupt. Such symptoms should be reported to the patient's prescriber or health professional, especially if they are severe, abrupt in onset, or were not part of the patient's presenting symptoms. Symptoms such as these may be associated with an increased risk for suicidal thinking and behavior and indicate a need for very close monitoring and possibly changes in the medication.

Neuropsychiatric Symptoms and Suicide Risk in Smoking Cessation Treatment

Although bupropion hydrochloride tablets are not indicated for smoking cessation treatment, it contains the same active ingredient as ZYBAN which is approved for this use. Patients should be informed that quitting smoking, with or without ZYBAN may be associated with nicotine withdrawal symptoms (including depression or agitation), or exacerbation of preexisting psychiatric illness. Furthermore, some patients have experienced changes in mood (including depression and mania), psychosis, hallucinations, paranoia, delusions, homicidal ideation aggression, anxiety and panic, as well as suicidal ideation, suicide attempt and completed suicide when attempting to quit smoking while taking ZYBAN. If patients develop agitation, hostility, depressed mood, or changes in thinking or behavior that are not typical for them, or if patients develop suicidal ideation or behavior, they should be urged to report these symptoms to their healthcare provider immediately.

Bupropion-Containing Products

Patients should be made aware that bupropion hydrochloride tablets contain the same active ingredient found in ZYBAN used as an aid to smoking cessation, and that bupropion hydrochloride tablets should not be used in combination with ZYBAN or any other medications that contain bupropion hydrochloride (such as WELLBUTRIN SR the sustained-release formulation and WELLBUTRIN XL the extended-release formulation).

Patients should be instructed to take bupropion in equally divided doses 3 or 4 times a day to minimize the risk of seizure.

Patients should be told that bupropion should be discontinued and not restarted if they experience a seizure while on treatment.

Patients should be told that any CNS-active drug like bupropion may impair their ability to perform tasks requiring judgment or motor and cognitive skills. Consequently, until they are reasonably certain that bupropion does not adversely affect their performance, they should refrain from driving an automobile

or operating complex, hazardous machinery.

Patients should be told that the excessive use or abrupt discontinuation of alcohol or sedatives (including benzodiazepines) may alter the seizure threshold. Some patients have reported lower alcohol tolerance during treatment with bupropion. Patients should be advised that the consumption of alcohol should be minimized or avoided.

Patients should be advised to inform their physicians if they are taking or plan to take any prescription or over-the-counter drugs. Concern is warranted because bupropion and other drugs may affect each other's metabolism.

Patients should be advised to notify their physicians if they become pregnant or intend to become pregnant during therapy.

Laboratory Tests

There are no specific laboratory tests recommended.

Drug Interactions

Few systemic data have been collected on the metabolism of bupropion following concomitant administration with other drugs or, alternatively, the effect of concomitant administration of bupropion on the metabolism of other drugs.

Because bupropion is extensively metabolized, the coadministration of other drugs may affect its clinical activity. In vitro studies indicate that bupropion is primarily metabolized to hydroxybupropion by the CYP2B6 isoenzyme. Therefore, the potential exists for a drug interaction between bupropion and drugs that are the substrates or inhibitors of the CYP2B6 isoenzyme (e.g., orphenadrine, thiotepa and cyclophosphamide). In addition, in vitro studies suggest that paroxetine, sertraline, norfluoxetine, and fluvoxamine as well as nelfinavir, ritonavir, and efavirenz inhibit the hydroxylation of bupropion. No clinical studies have been performed to evaluate this finding. The threohydrobupropion metabolite of bupropion does not appear to be produced by the cytochrome P450 isoenzymes. The effects of concomitant administration of cimetidine on the pharmacokinetics of bupropion and its active metabolites were studied in 24 healthy young male volunteers. Following oral administration of two 150 mg sustained-release tablets with and without 800 mg of cimetidine, the pharmacokinetics of bupropion and hydroxybupropion were unaffected. However, there were 16% and 32% increases in the AUC and C_{max}, respectively, of the combined moieties of threohydrobupropion and erythrohydrobupropion.

While not systematically studied, certain drugs may induce the metabolism of bupropion (e.g., carbamazepine, phenobarbital, phenytoin).

Multiple oral doses of bupropion had no statistically significant effects on the single-dose pharmacokinetics of lamotrigine in 12 healthy volunteers.

Animal data indicated that bupropion may be an inducer of drug-metabolizing enzymes in humans. In one study, following chronic administration of bupropion, 100 mg 3 times daily to eight healthy male volunteers for 14 days, there was no evidence of induction of its own metabolism. Nevertheless, there may be the potential for clinically important alterations of blood levels of coadministered drugs.

Drugs Metabolized by Cytochrome P450IID6 (CYP2D6)

Many drugs, including most antidepressants (SSRIs, many tricyclics), beta-blockers, antiarrhythmics, and antipsychotics are metabolized by the CYP2D6 isoenzyme. Although bupropion is not metabolized by

this isoenzyme, bupropion and hydroxybupropion are inhibitors of the CYP2D6 isoenzyme in vitro. In a study of 15 male subjects (ages 19 to 35 years) who were extensive metabolizers of the CYP2D6 isoenzyme, daily doses of bupropion given as 150 mg twice daily followed by a single dose of 50 mg desipramine increased the C_{max}, AUC, and t_{1/2} of desipramine by an average of approximately 2-fold, 5-fold and 2-fold, respectively. The effect was present for at least 7 days after the last dose of bupropion. Concomitant use of bupropion with other drugs metabolized by CYP2D6 has not been formally studied.

Therefore, coadministration of bupropion with drugs that are metabolized by CYP2D6 isoenzyme including certain antidepressants (e.g., nortriptyline, imipramine, desipramine, paroxetine, fluoxetine, sertraline), antipsychotics (e.g., haloperidol, risperidone, thioridazine), beta-blockers (e.g., metoprolol), and Type 1C antiarrhythmics (e.g., propafenone, flecainide), should be approached with caution and should be initiated at the lower end of the dose range of the concomitant medication. If bupropion is added to the treatment regimen of a patient already receiving a drug metabolized by CYP2D6, the need to decrease the dose of the original medication should be considered, particularly for those concomitant medications with a narrow therapeutic index.

MAO Inhibitors

Studies in animals demonstrate that the acute toxicity of bupropion is enhanced by the MAO inhibitor phenelzine (see CONTRAINDICATIONS).

Levodopa and Amantadine

Limited clinical data suggest a higher incidence of adverse experiences in patients receiving bupropion concurrently with either levodopa or amantadine. Administration of bupropion hydrochloride tablets to patients receiving either levodopa or amantadine concurrently should be undertaken with caution, using small initial doses and small gradual dose increases.

Drugs that Lower Seizure Threshold

Concurrent administration of bupropion and agents (e.g., antipsychotics, other antidepressants, theophylline, systemic steroids, etc.) that lower seizure threshold should be undertaken only with extreme caution (see WARNINGS). Low initial dosing and small gradual dose increases should be employed.

Nicotine Transdermal System

(see PRECAUTIONS: General: Cardiovascular Effects).

Alcohol

In post-marketing experience, there have been rare reports of adverse neuropsychiatric events or reduced alcohol tolerance in patients who were drinking alcohol during treatment with bupropion. The consumption of alcohol during treatment with bupropion should be minimized or avoided (also see CONTRAINDICATIONS).

Carcinogenesis, Mutagenesis, Impairment of Fertility

Bupropion produced a borderline positive response (2 to 3 times control mutation rate) in some strains in the Ames bacterial mutagenicity test, and a high oral dose (300 mg/kg, but not 100 or 200 mg/kg) produced a low incidence of chromosomal aberrations in rats. The relevance of these results in

estimating the risk of human exposure to therapeutic doses is unknown.

Pregnancy

Teratogenic Effects. Pregnancy Category C

When rats were administered bupropion at oral doses of up to 300 mg/kg/day (approximately 7 times the MRHD on a mg/m² basis) prior to mating and throughout pregnancy and lactation, there were no apparent adverse effects on offspring development.

One study has been conducted in pregnant women. This retrospective, managed care database study assessed the risk of congenital malformations overall, and cardiovascular malformations specifically, following exposure to bupropion in the first trimester compared to the risk of these malformations following exposure to other antidepressants in the first trimester and bupropion outside of the first trimester. This study included 7,005 infants with antidepressant exposure during pregnancy, 1,213 of whom were exposed to bupropion in the first trimester. The study showed no greater risk for congenital malformations overall, or cardiovascular malformations specifically, following first trimester bupropion exposure compared to exposure to all other antidepressants in the first trimester, or bupropion outside of the first trimester. The results of this study have not been corroborated. Bupropion should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Labor and Delivery

The effect of bupropion on labor and delivery in humans is unknown.

Nursing Mothers

Like many other drugs, bupropion and its metabolites are secreted in human milk. Because of the potential for serious adverse reactions in nursing infants from bupropion, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use

Safety and effectiveness in the pediatric population have not been established (see BOX WARNING and WARNINGS: Clinical Worsening and Suicide Risk in Treating Psychiatric Disorders). Anyone considering the use of bupropion in a child or adolescent must balance the potential risks with the clinical need.

Geriatric Use

Of the approximately 6,000 patients who participated in clinical trials with bupropion hydrochloride sustained-release tablets (depression and smoking cessation studies), 275 were 65 and over and 47 were 75 and over. In addition, several hundred patients 65 and over participated in clinical trials using the immediate-release formulation of bupropion (depression studies). No overall differences in safety or effectiveness were observed between these subjects and younger subjects, and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out.

Bupropion is extensively metabolized in the liver to active metabolites, which are further metabolized and excreted by the kidneys. The risk of toxic reaction to this drug may be greater in patients with impaired renal function. Because elderly patients are more likely to have decreased renal function, care should be taken in dose selection, and it may be useful to monitor renal function (see PRECAUTIONS: General: Renal Impairment and DOSAGE AND ADMINISTRATION).

ADVERSE REACTIONS

(See also WARNINGS and PRECAUTIONS.)

Adverse events commonly encountered in patients treated with bupropion are agitation, dry mouth, insomnia, headache/migraine, nausea/vomiting, constipation, and tremor.

Adverse events were sufficiently troublesome to cause discontinuation of treatment with bupropion in approximately 10% of the 2,400 patients and volunteers who participated in clinical trials during the product

Accurate estimates of the incidence of adverse events associated with the use of any drug are difficult to obtain. Estimates are influenced by drug dose, detection technique, setting, physician judgments, etc. Consequently, Table 2 is presented solely to indicate the relative frequency of adverse events reported in representative controlled clinical studies conducted to evaluate the safety and efficacy of bupropion under relatively similar conditions of daily dosage (300 mg to 600 mg), setting, and duration (3 to 4 weeks). The figures cited cannot be used to predict precisely the incidence of untoward events in the course of usual medical practice where patient characteristics and other factors must differ from those which prevailed in the clinical trials. These incidence figures also cannot be compared with those obtained from other clinical studies involving related drug products as each group of drug trials is conducted under a different set of conditions.

Finally, it is important to emphasize that the tabulation does not reflect the relative severity and/or clinical importance of the events. A better perspective on the serious adverse events associated with the use of bupropion is provided in WARNINGS and PRECAUTIONS.

Table 2. Treatment Emergent Adverse Experience Incidence in Placebo-Controlled Clinical Trials*
(Percent of Patients Reporting)

*

Events reported by at least 1% of patients receiving bupropion are included.

Adverse ExperienceBupropion Patients

(n = 323)Placebo Patients

(n = 185)

Cardiovascular

Cardiac arrhythmias5.34.3

Dizziness22.316.2

Hypertension4.31.6

Hypotension2.52.2

Palpitations3.72.2

Syncope1.20.5

Tachycardia10.88.6

Dermatologic

Pruritus2.20

Rash86.5

Gastrointestinal

Anorexia18.318.4

Appetite increase 3.72.2
 Constipation 2617.3
 Diarrhea 6.88.6
 Dyspepsia 3.12.2
 Nausea/vomiting 22.918.9
 Weight gain 13.622.7
 Weight loss 23.223.2
 Genitourinary
 Impotence 3.43.1
 Menstrual complaints 4.71.1
 Urinary frequency 2.52.2
 Urinary retention 1.92.2
 Musculoskeletal
 Arthritis 3.12.7
 Neurological
 Akathisia 1.51.1
 Akinesia/bradykinesia 88.6
 Cutaneous temperature disturbance 1.91.6
 Dry mouth 27.618.4
 Excessive sweating 22.314.6
 Headache/migraine 25.722.2
 Impaired sleep quality 41.6
 Increased salivary flow 3.43.8
 Insomnia 18.615.7
 Muscle spasms 1.93.2
 Pseudoparkinsonism 1.51.6
 Sedation 19.819.5
 Sensory disturbance 43.2
 Tremor 21.17.6
 Neuropsychiatric
 Agitation 31.922.2
 Anxiety 3.11.1
 Confusion 8.44.9
 Decreased libido 3.11.6
 Delusions 1.21.1
 Disturbed concentration 3.13.8
 Euphoria 1.20.5
 Hostility 5.63.8
 Nonspecific
 Fatigue 58.6
 Fever/chills 1.20.5
 Respiratory
 Upper respiratory complaints 511.4
 Special Senses
 Auditory disturbance 5.33.2
 Blurred vision 14.610.3
 Gustatory disturbance 3.11.1

Other Events Observed During the Development of Bupropion

The following definitions of frequency are used: Frequent adverse events are defined as those occurring in at least 1/100 patients. Infrequent adverse events are those occurring in 1/100 to 1/1,000

patients, while rare events are those occurring in less than 1/1,000 patients.

Hematologic/Oncologic: Rare were lymphadenopathy, anemia, and pancytopenia.

Musculoskeletal: Rare was musculoskeletal chest pain.

Postintroduction Reports

Voluntary reports of adverse events temporally associated with bupropion that have been received since market introduction and which may have no causal relationship with the drug include the following:

Body (General): arthralgia, myalgia, and fever with rash and other symptoms suggestive of delayed hypersensitivity. These symptoms may resemble serum sickness (see PRECAUTIONS).

Cardiovascular: hypertension (in some cases severe, see PRECAUTIONS), orthostatic hypotension, third degree heart block

Endocrine: syndrome of inappropriate antidiuretic hormone secretion, hyperglycemia, hypoglycemia

Gastrointestinal: esophagitis, hepatitis, liver damage

Hemic and Lymphatic: ecchymosis, leukocytosis, leukopenia, thrombocytopenia. Altered PT and/or INR, infrequently associated with hemorrhagic or thrombotic complications, were observed when bupropion was coadministered with warfarin.

Musculoskeletal: arthralgia, myalgia, muscle rigidity/fever/rhabdomyolysis, muscle weakness

Nervous: aggression, coma, completed suicide, delirium, dream abnormalities, paranoid ideation, paresthesia, restlessness, suicide attempt, unmasking of tardive dyskinesia

Skin and Appendages: Stevens-Johnson Syndrome, angioedema, exfoliative dermatitis, urticaria

Special Senses: tinnitus, increased intraocular pressure

DRUG ABUSE AND DEPENDENCE

Humans

Controlled clinical studies conducted in normal volunteers, in subjects with a history of multiple drug abuse, and in depressed patients showed some increase in motor activity and agitation/excitement.

In a population of individuals experienced with drugs of abuse, a single dose of 400 mg of bupropion hydrochloride tablets produced mild amphetamine-like activity as compared to placebo on the Morphine-Benzedrine Subscale of the Addiction Research Center Inventories (ARCI) and a score intermediate between placebo and amphetamine on the Liking Scale of the ARCI. These scales measure general feelings of euphoria and drug desirability.

Findings in clinical trials, however, are not known to predict the abuse potential of drugs reliably. Nonetheless, evidence from single-dose studies does suggest that the recommended daily dosage of bupropion when administered in divided doses is not likely to be especially reinforcing to amphetamine or stimulant abusers. However, higher doses that could not be tested because of the risk of seizure might be modestly attractive to those who abuse stimulant drugs.

Animals

Studies in rodents have shown that bupropion exhibits some pharmacologic actions common to psychostimulants, including increases in locomotor activity and the production of a mild stereotyped behavior and increases in rates of responding in several schedule-controlled behavior paradigms. Drug discrimination studies in rats showed stimulus generalization between bupropion and amphetamine and other psychostimulants. Rhesus monkeys have been shown to self-administer bupropion intravenously.

OVERDOSAGE

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DOSAGE & ADMINISTRATION

General Dosing Considerations

It is particularly important to administer bupropion hydrochloride tablets in a manner most likely to minimize the risk of seizure (see WARNINGS). Increases in dose should not exceed 100 mg/day in a 3-day period. Gradual escalation in dosage is also important if agitation, motor restlessness, and insomnia,

often seen during the initial days of treatment, are to be minimized. If necessary, these effects may be managed by temporary reduction of dose or the short-term administration of an intermediate to long-acting sedative hypnotic. A sedative hypnotic usually is not required beyond the first week of treatment. Insomnia may also be minimized by avoiding bedtime doses. If distressing, untoward effects supervene, dose escalation should be stopped.

No single-dose of bupropion hydrochloride tablets should exceed 150 mg. Bupropion should be administered 3 times daily, preferably with at least 6 hours between successive doses.

Usual Dosage for Adults

The usual adult dose is 300 mg/day, given 3 times daily. Dosing should begin at 200 mg/day, given as 100 mg twice daily. Based on clinical response, this dose may be increased to 300 mg/day, given as 100 mg 3 times daily, no sooner than 3 days after beginning therapy (see Table 3).

Table 3. Dosing Regimen Treatment

Day	Total	Daily Dose	Tablet
Strength			
Number of Tablets			
Morning	Midday	Evening	
1200 mg	100 mg	101	
4300 mg	100 mg	111	

Increasing the Dosage Above 300 mg/day

As with other antidepressants, the full antidepressant effect of bupropion may not be evident until 4 weeks of treatment or longer. An increase in dosage, up to a maximum of 450 mg/day, given in divided doses of not more than 150 mg each, may be considered for patients in whom no clinical improvement is noted after several weeks of treatment at 300 mg/day. Dosing above 300 mg/day may be accomplished using the 75 mg or 100 mg tablets. The 100 mg tablet must be administered 4 times daily with at least 4 hours between successive doses, in order not to exceed the limit of 150 mg in a single-dose. Bupropion should be discontinued in patients who do not demonstrate an adequate response after an appropriate period of treatment at 450 mg/day.

Maintenance Treatment

The lowest dose that maintains remission is recommended. Although it is not known how long the patient should remain on bupropion, it is generally recognized that acute episodes of depression require several months or longer of antidepressant drug treatment.

Dosage Adjustment for Patients with Impaired Hepatic Function

Bupropion should be used with extreme caution in patients with severe hepatic cirrhosis. The dose should not exceed 75 mg once a day in these patients. Bupropion should be used with caution in patients with hepatic impairment (including mild to moderate hepatic cirrhosis) and a reduced frequency and/or dose should be considered in patients with mild to moderate hepatic cirrhosis (see CLINICAL PHARMACOLOGY, WARNINGS and PRECAUTIONS).

Dosage Adjustment for Patients with Impaired Renal Function

Bupropion should be used with caution in patients with renal impairment and a reduced frequency and/or dose should be considered (see CLINICAL PHARMACOLOGY and PRECAUTIONS).

HOW SUPPLIED

Bupropion Hydrochloride Tablets, USP are available containing 75 mg or 100 mg of bupropion hydrochloride, USP.

The 75 mg tablets are peach film-coated, round, unscored tablets debossed with M on one side of the tablet and 433 on the other side. They are available as follows:

NDC 0378-0433-01
bottles of 100 tablets

NDC 0378-0433-05
bottles of 500 tablets

The 100 mg tablets are light blue film-coated, round, unscored tablets debossed with M on one side of the tablet and 435 on the other side. They are available as follows:

NDC 0378-0435-01
bottles of 100 tablets

NDC 0378-0435-05
bottles of 500 tablets

Store at 20to 25(68to 77[See USP Controlled Room Temperature.]

Protect from light and moisture.

Dispense in a tight, light-resistant container as defined in the USP using a child-resistant closure.

PHARMACIST: Dispense a Medication Guide with each prescription.

*The following are registered trademarks of their respective manufacturers: ZYBANWELLBUTRIN SRand WELLBUTRIN XL

U.S. Pat. No. 5,968,553

Mylan Pharmaceuticals Inc.
Morgantown, WV 26505

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BUPR:R22mpbmt

SPL MEDGUIDE

Read this Medication Guide carefully before you start using bupropion hydrochloride tablets and each time you get a refill. There may be new information. This information does not take the place of talking with your doctor about your medical condition or your treatment. If you have any questions about bupropion, ask your doctor or pharmacist.

Antidepressant Medicines, Depression and Other Serious Mental Illnesses, and Suicidal Thoughts or Actions

This section of the Medication Guide is only about the risk of suicidal thoughts and actions with

antidepressant medicines. Talk to your, or your family member's, healthcare provider about:

- * all risks and benefits of treatment with antidepressant medicines
- * all treatment choices for depression or other serious mental illness

What is the most important information I should know about antidepressant medicines, depression and other serious mental illnesses, and suicidal thoughts or actions?

1. Antidepressant medicines may increase suicidal thoughts or actions in some children, teenagers, and young adults within the first few months of treatment.
2. Depression and other serious mental illnesses are the most important causes of suicidal thoughts and actions. Some people may have a particularly high risk of having suicidal thoughts or actions. These include people who have (or have a family history of) bipolar illness (also called manic-depressive illness) or suicidal thoughts or actions.
3. How can I watch for and try to prevent suicidal thoughts and actions in myself or a family member?
 - * Pay close attention to any changes, especially sudden changes, in mood, behaviors, thoughts, or feelings. This is very important when an antidepressant medicine is started or when the dose is changed.
 - * Call the healthcare provider right away to report new or sudden changes in mood, behavior, thoughts, or feelings.
 - * Keep all follow-up visits with the healthcare provider as scheduled. Call the healthcare provider between visits as needed, especially if you have concerns about symptoms.

Call a healthcare provider right away if you or your family member has any of the following symptoms, especially if they are new, worse, or worry you:

- * thoughts about suicide or dying
- * attempts to commit suicide
- * new or worse depression
- * new or worse anxiety
- * feeling very agitated or restless
- * panic attacks
- * trouble sleeping (insomnia)
- * new or worse irritability
- * acting aggressive, being angry, or violent
- * acting on dangerous impulses
- * an extreme increase in activity and talking (mania)
- * other unusual changes in behavior or mood

What else do I need to know about antidepressant medicines?

- * Never stop an antidepressant medicine without first talking to a healthcare provider. Stopping an antidepressant medicine suddenly can cause other symptoms.
- * Antidepressants are medicines used to treat depression and other illnesses. It is important to discuss all the risks of treating depression and also the risks of not treating it. Patients and their families or other caregivers should discuss all treatment choices with the healthcare provider, not just the use of antidepressants.
- * Antidepressant medicines have other side effects. Talk to the healthcare provider about the side effects of the medicine prescribed for you or your family member.
- * Antidepressant medicines can interact with other medicines. Know all of the medicines that you or your family member takes. Keep a list of all medicines to show the healthcare provider. Do not start new medicines without first checking with your healthcare provider.
- * Not all antidepressant medicines prescribed for children are FDA approved for use in children. Talk to your child's healthcare provider for more information.

Bupropion has not been studied in children under the age of 18 and is not approved for use in children and teenagers.

Quitting Smoking, Quit-Smoking Medications, Changes in Thinking and Behavior, Depression, and Suicidal Thoughts or Actions

This section of the Medication Guide is only about the risk of changes in thinking and behavior, depression and suicidal thoughts or actions with drugs used to quit smoking.

Although bupropion hydrochloride tablets are not a treatment for quitting smoking, it contains the same active ingredient (bupropion hydrochloride) as ZYBAN which is used to help patients quit smoking.

Some people have had changes in behavior, hostility, agitation, depression, suicidal thoughts or actions while taking bupropion to help them quit smoking. These symptoms can develop during treatment with bupropion or after stopping treatment with bupropion.

If you, your family member or your caregiver notice agitation, hostility, depression, or changes in thinking or behavior that are not typical for you, or you have any of the following symptoms, stop taking bupropion and call your healthcare provider right away:

- * thoughts about suicide or dying
- * attempts to commit suicide
- * new or worse depression
- * new or worse anxiety
- * panic attacks
- * feeling very agitated or restless
- * acting aggressive, being angry, or violent
- * acting on dangerous impulses
- * an extreme increase in activity and talking (mania)
- * abnormal thoughts or sensations
- * seeing or hearing things that are not there (hallucinations)
- * feeling people are against you (paranoia)
- * feeling confused
- * other unusual changes in behavior or mood

When you try to quit smoking, with or without bupropion, you may have symptoms that may be due to nicotine withdrawal, including urge to smoke, depressed mood, trouble sleeping, irritability, frustration, anger, feeling anxious, difficulty concentrating, restlessness, decreased heart rate, and increased appetite or weight gain. Some people have even experienced suicidal thoughts when trying to quit smoking without medication. Sometimes quitting smoking can lead to worsening of mental health problems that you already have, such as depression.

Before taking bupropion, tell your healthcare provider if you have ever had depression or other mental illnesses. You should also tell your doctor about any symptoms you had during other times you tried to quit smoking, with or without bupropion.

What Other Important Information Should I Know About Bupropion Hydrochloride Tablets?

Seizures: There is a chance of having a seizure (convulsion, fit) with bupropion, especially in people:

- * with certain medical problems.
- * who take certain medicines.

The chance of having seizures increases with higher doses of bupropion. For more information, see the sections Who should not take bupropion? and What should I tell my doctor before using bupropion? Tell your doctor about all of your medical conditions and all the medicines you take. Do not take any other medicines while you are using bupropion unless your doctor has said it is okay to take them.

If you have a seizure while taking bupropion, stop taking the tablets and call your doctor right away. Do not take bupropion again if you have a seizure.

- * High blood pressure (hypertension). Some people get high blood pressure, that can be severe, while taking bupropion. The chance of high blood pressure may be higher if you also use nicotine replacement therapy (such as a nicotine patch) to help you stop smoking.

- * Severe allergic reactions: Some people have severe allergic reactions to bupropion. Stop taking bupropion and call your doctor right away if you get a rash, itching, hives, fever, swollen lymph glands, painful sores in the mouth or around the eyes, swelling of the lips or tongue, chest pain or have trouble breathing. These could be signs of a serious allergic reaction.

- * Unusual thoughts or behaviors. Some patients have unusual thoughts or behaviors while taking bupropion, including delusions (believe you are someone else), hallucinations (seeing or hearing things that are not there), paranoia (feeling that people are against you) or feeling confused. If this happens to you, call your doctor.

What is bupropion?

Bupropion is a prescription medicine used to treat adults with a certain type of depression called major depressive disorder.

Who should not take bupropion?

Do not take bupropion if you

- * have or had a seizure disorder or epilepsy.

- * are taking ZYBAN (used to help people stop smoking) or any other medicines that contain bupropion hydrochloride, such as WELLBUTRIN SR Sustained-Release Tablets or WELLBUTRIN XL Extended-Release Tablets. Bupropion is the same ingredient that is in bupropion hydrochloride tablets, USP.

- * drink a lot of alcohol and abruptly stop drinking, or use medicines called sedatives (these make you sleepy) or benzodiazepines and you stop using them all of a sudden.

- * have taken within the last 14 days medicine for depression called a monoamine oxidase inhibitor (MAOI), such as NARDIL (phenelzine sulfate), PARNATE (tranylcypromine sulfate), or MARPLAN (isocarboxazid).

- * have or had an eating disorder such as anorexia nervosa or bulimia.

- * are allergic to the active ingredient in bupropion hydrochloride tablets, bupropion, or to any of the inactive ingredients. See the end of this leaflet for a complete list of ingredients in bupropion hydrochloride tablets.

What should I tell my doctor before using bupropion?

Tell your doctor if you have ever had depression, suicidal thoughts or actions, or other mental health problems. See Antidepressant Medicines, Depression and Other Serious Mental Illnesses, and Suicidal Thoughts or Actions.

- * Tell your doctor about your other medical conditions including if you:

- o are pregnant or plan to become pregnant. It is not known if bupropion can harm your unborn baby.

- o are breast-feeding. Bupropion passes through your milk. It is not known if bupropion can harm your

baby.

- o have liver problems, especially cirrhosis of the liver.

- o have kidney problems.

- o have an eating disorder, such as anorexia nervosa or bulimia.

- o have had a head injury.

- o have had a seizure (convulsion, fit).

- o have a tumor in your nervous system (brain or spine).

- o have had a heart attack, heart problems, or high blood pressure.

- o are a diabetic taking insulin or other medicines to control your blood sugar.

- o drink a lot of alcohol.

- o abuse prescription medicines or street drugs.

- * Tell your doctor about all the medicines you take, including prescription and non-prescription medicines, vitamins, and herbal supplements. Many medicines increase your chances of having seizures or other serious side effects if you take them while you are using bupropion.

How should I take bupropion?

- * Take bupropion exactly as prescribed by your doctor.

- * Take bupropion at the same time each day.

- * Take your doses of bupropion at least 6 hours apart.

- * You may take bupropion with or without food.

- * If you miss a dose, do not take an extra tablet to make up for the dose you forgot. Wait and take your next tablet at the regular time. This is very important. Too much bupropion can increase your chance of having a seizure.

- * If you take too much bupropion, or overdose, call your local emergency room or poison control center right away.

- * Do not take any other medicines while using bupropion unless your doctor has told you it is okay.

- * It may take several weeks for you to feel that bupropion is working. Once you feel better, it is important to keep taking bupropion exactly as directed by your doctor. Call your doctor if you do not feel bupropion is working for you.

- * Do not change your dose or stop taking bupropion without talking with your doctor first.

What should I avoid while taking bupropion?

- * Do not drink a lot of alcohol while taking bupropion. If you usually drink a lot of alcohol, talk with your doctor before suddenly stopping. If you suddenly stop drinking alcohol, you may increase your risk of having seizures.

- * Do not drive a car or use heavy machinery until you know how bupropion affects you. Bupropion can impair your ability to perform these tasks.

What are possible side effects of bupropion?

Bupropion can cause serious side effects. Read this entire Medication Guide for more information about these serious side effects.

The most common side effects of bupropion are nervousness, constipation, trouble sleeping, dry mouth, headache, nausea, vomiting, and shakiness (tremor).

If you have nausea, take your medicine with food. If you have trouble sleeping, do not take your medicine too close to bedtime.

These are not all the side effects of bupropion. For a complete list, ask your doctor or pharmacist.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store bupropion?

* Store bupropion hydrochloride tablets at room temperature. Store out of direct sunlight. Keep bupropion hydrochloride tablets in its tightly closed bottle.

General Information about bupropion.

* Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide. Do not use bupropion for a condition for which it was not prescribed. Do not give bupropion to other people, even if they have the same symptoms you have. It may harm them. Keep bupropion out of the reach of children.

This Medication Guide summarizes important information about bupropion. For more information, talk to your doctor. You can ask your doctor or pharmacist for information about bupropion that is written for health professionals.

What are the ingredients in bupropion hydrochloride tablets?

Active ingredient: bupropion hydrochloride, USP.

Inactive ingredients: anhydrous lactose, colloidal silicon dioxide, crospovidone, hydrochloric acid, hypromellose, microcrystalline cellulose, polydextrose, polyethylene glycol, stearic acid, titanium dioxide and triacetin. In addition, the 75 mg tablets contain synthetic red iron oxide and synthetic yellow iron oxide and the 100 mg tablets contain FD&C Blue No. 2 Aluminum Lake and FD&C Yellow No. 6 Aluminum Lake.

*The following are registered trademarks of their respective manufacturers: NARDIL Lambert Company, MARPLAN Pharmaceutical Services, Inc., PARNATEZYBAN and WELLBUTRINSR and WELLBUTRINXL/GlaxoSmithKline.

This Medication Guide has been approved by the U.S. Food and Drug Administration.

Mylan Pharmaceuticals Inc.
Morgantown, WV 26505

REVISED JULY 2009
MG:BUPR:R3

PRINCIPAL DISPLAY PANEL - 75 mg

NDC 0378-0433-01

buPROPion
Hydrochloride
Tablets, USP
75 mg

WARNING: Do not use in combination
with Zybanor any other medicines
that contain bupropion hydrochloride.

100 TABLETS (Rx only)

Each film-coated tablet contains:

Bupropion

hydrochloride, USP. . . . 75 mg

Dispense in a tight, light-resistant container as defined in the USP using a child-resistant closure.

Keep container tightly closed.

Keep this and all medication out of the reach of children.

Store at 20to 25(68to 77
[See USP Controlled Room
Temperature.]

Protect from light and moisture.

Usual Adult Dosage: See accompanying prescribing information.

PHARMACIST: Dispense the accompanying Medication Guide to each patient.

*Zybanis a registered trademark of GlaxoSmithKline.

Mylan Pharmaceuticals Inc.
Morgantown, WV 26505

RM0433A11

U.S. Pat. No. 5,968,553

INACTIVE INGREDIENT
ANHYDROUS LACTOSE
SILICON DIOXIDE
CROSPVIDONE
HYDROCHLORIC ACID
HYPROMELLOSE
CELLULOSE, MICROCRYSTALLINE
POLYDEXTROSE
POLYETHYLENE GLYCOL
STEARIC ACID
TITANIUM DIOXIDE
TRIACETIN
FD&C BLUE NO. 2

FD&C YELLOW NO. 6

PACKAGE LABEL.PRINCIPAL DISPLAY PANEL SECTION

DRUG: Bupropion HCl
GENERIC: Bupropion HCl
DOSAGE: TABLET, FILM COATED
ADMINISTRATION: ORAL
NDC: 49349-653-02
STRENGTH: 75 mg
COLOR: orange
SHAPE: ROUND
SCORE: No score
SIZE: 11 mm
IMPRINT: 30
QTY: 30

BUPROPION HCL

75MG TAB

QTY: 00030

NDC#: 49349-0653-02 INT:MS ID#:M 433

EXPIRES: 01/10/11 COL: Orange SHAPE: Round

LOT#: 012345

DIST: MYLAN PHARMA INC MORGANTOWN WV 26505

MFG: MYLAN PHARMA INC MORGANTOWN WV 26505

A. Caution Federal law prohibits transfer of this drug to any person other than for whom it was prescribed.

B. Store at a temperature between 15 degree C and 30 degree C (59 degree F and 86 degree F) {see USP}

C. Re-packaged by: RemedyRepack Inc. 655 Kolter Dr.,
Indiana, PA 15701, 1-724-465-8762





DRUG: Bupropion HCl
GENERIC: Bupropion HCl
DOSAGE: TABLET, FILM COATED
ADMINISTRATION: ORAL
NDC: 49349-653-30
STRENGTH: 75 mg
COLOR: orange
SHAPE: ROUND
SCORE: No score
SIZE: 11 mm
IMPRINT: 400
QTY: 400

BUPROPION HCL

75MG TAB

QTY: 00400

NDC#: 49349-0653-30 INT:MS ID#:M 433

EXPIRES: 3/09/2011 COL: PEACH SHAPE: ROUND

LOT#: 012345

DIST: MYLAN PHARMA INC MORGANTOWN WV 26505

MFG: MYLAN PHARMA INC MORGANTOWN WV 26505

A. Caution Federal law prohibits transfer of this drug to any person other than for whom it was prescribed.

B. Store at a temperature between 15 degree C and 30 degree C (59 degree F and 86 degree F) {see USP}

C. Re-packaged by: RemedyRepack Inc. 655 Kolter Dr.,
Indiana, PA 15701, 1-724-465-8762



BUPROPION HYDROCHLORIDE

bupropion hydrochloride tablet, film coated

Product Information

Product Type	HUMAN PRESCRIPTION DRUG	Item Code (Source)	NDC:49349- 653(NDC:0378-0433)
Route of Administration	ORAL	DEA Schedule	

Active Ingredient/Active Moiety

Ingredient Name	Basis of Strength	Strength
BUPROPION HYDROCHLORIDE (UNII: ZG7E5POY8O) (BUPROPION - UNII:01ZG3TPX31)	BUPROPION HYDROCHLORIDE	75 mg

Inactive Ingredients

Ingredient Name	Strength
ANHYDROUS LACTOSE (UNII: 3SY5LH9PMK)	
SILICON DIOXIDE (UNII: ETJ7Z6XBU4)	
CROSPVIDONE (UNII: 68401960MK)	
HYDROCHLORIC ACID (UNII: QTT17582CB)	
HYPROMELLOSES (UNII: 3NXW29V3WO)	
CELLULOSE, MICROCRYSTALLINE (UNII: OP1R32D61U)	
POLYDEXTROSE (UNII: VH2XOU12IE)	
POLYETHYLENE GLYCOL (UNII: 3WJQ0SDW1A)	
STEARIC ACID (UNII: 4ELV7Z65AP)	
TITANIUM DIOXIDE (UNII: 15FIX9V2JP)	
TRIACETIN (UNII: XHX3C3X673)	
FERRIC OXIDE RED (UNII: 1K09F3G675)	
FERRIC OXIDE YELLOW (UNII: EX438O2MRT)	

Product Characteristics

Color	orange	Score	no score
Shape	ROUND (TABLET, FILM COATED)	Size	11mm
Flavor		Imprint Code	M;433
Contains			

Packaging

#	Item Code	Package Description	Marketing Start Date	Marketing End Date
1	NDC:49349-653-02	30 in 1 BLISTER PACK		
2	NDC:49349-653-30	400 in 1 CANISTER		

Marketing Information

Marketing Category	Application Number or Monograph Citation	Marketing Start Date	Marketing End Date
ANDA	ANDA075491	05/10/2011	

Labeler - REMEDYREPACK INC. (829572556)

Revised: 5/2011

REMEDYREPACK INC.